ADVANCES IN MATHEMATICS 71, 130–131 (1988)

Book Reviews

R. I. SOARE, *Recursively Enumerable Sets and Degrees*, Springer, 1987, 437 pp.

The first comprehensive account of the theory of recursive functions since Hartley Rogers's classic treatise. The author wisely keeps an eye to computer application, aware of the fact that mathematical logic is rapidly becoming one of the most active branches of applied mathematics. The reading may not be easy for dyed-in-the-wool computer scientists, but at least it will stimulate them to take more mathematics courses, and remind them where computer science came from, and where it still has its roots.

K. BAYNES, J. BOHMAN, AND T. MCCARTHY (Eds.), *After Philosophy, End or Transformation*? MIT Press, 1987, 488 pp.

If nothing else, the authors have achieved the unusual feat of bringing under the same covers such improbable bedfellows as Putnam and Gadamer, Dummett and Derrida. Interesting to leaf through if you already know what these redoubtable authors are up to, but a baffling array of contradictory statements to the merely curious reader. It is not clear that these philosophical anthologies serve any purpose, other than that of torturing some misguided undergraduate who has been unwisely lured into taking one of those equivocal "survey" courses whose only effect will be to turn him or her off philosophy forever.

S. ALBEVERIO, G. CASATI, AND D. MERLINI, *Stochastic Processes in Classical and Quantum Systems*, Springer, 1986, 551 pp.

While watching the history-loaded (but alas, now trout-empty) waters of the Ticino, it is easy to speculate that the beautiful quantum mechanical analogs of the classical stochastic processes now being worked out by a powerful school of mathematically well-prepared (unlike their teachers) physicists will someday find applications of comparable importance (in dollars and cents) to Brownian motion and point processes, say. If we believe the dictum that the better the mathematics, the better the applications (and believe it we must), then we must take our hats off to these egregious attempts, even if they come to several thousand pages a year, bravely published in lecture-note format by that great defender of the faith, Springer-Verlag.

P. J. M. VAN LAARHOVE AND E. H. L. AARTS, *Simulated Annealing: Theory and Applications*, Reidel, 1987, 186 pp.

Here is an interesting challenge for the pure mathematician: a method invented by physicists, almost as witchcrafty as thermodynamics, that works in intractable optimization problems. Will it ever acquire the aura of dull respectability now held by martingales and Markov chains? An interesting cliffhanger, but in the meanwhile, here we have the facts to start with.

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